

## SHORT COMMUNICATION

### Chromosome numbers of some native and naturalised plant species in Australia

Barbara G. Briggs

Chromosome numbers are reported for 36 taxa in Centrolepidaceae, Cyperaceae, Juncaceae, Ranunculaceae and a range of other Angiosperm families. Most are somatic numbers determined on root-tip material, using c. 130 minutes pre-fixation treatment with saturated aqueous *p*-dichlorobenzene and staining by alcoholic carmine (Snow 1963). All except one count were made on Australian material; the exception is a report for *Juncus falcatus* from North America (this species has an unusual distribution, being native in south-eastern Australia, North America and north Asia). Species not native to Australia are marked with an asterisk in the following list.

### References

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- Briggs, B.G. and Makinson, R.O. (1990, 2000) Ranunculaceae. Pp. 155–167 in Harden, G.J. (ed.), *Flora of New South Wales*, vol. 1: 164, Edn 1 (1990); Edn 2 (2000). (New South Wales University Press: Kensington).
- Briggs, B.G. & Makinson, R.O. (2002) *Ranunculus meristus* (Ranunculaceae), a new stoloniferous species from eastern Australia. *Telopea* 9: 809–812.
- Edgar, E. & Wilson, K.L. (1993) *Luzula*. Pp. 289–293, in Harden, G.J. (ed.) *Flora of New South Wales*, vol. 4: 289–293. (New South Wales University Press: Kensington).
- Snow, R. (1963) Alcoholic hydrochloric acid-carmine as a stain for chromosomes in squash preparations. *Stain Technology* 38: 9–13.

FAMILY Species	Chromosome number	Voucher (Herb. NSW)	Collector	Locality
ANTHERICACEAE <i>Borya sphaerocephala</i> R. Br.	$2n = 28$	75460	<i>J.T. Waterhouse</i>	S of Beverley, W.A.
<i>Laxmannia brachyphylla</i> F. Muell.	$2n = 8$	89415	<i>K. Mair</i>	Kalgan Plains, W.A.
<i>L. gracilis</i> R. Br.	$2n = 24$	89417	<i>B.G. Briggs</i>	Wisemans Ferry, N.S.W.
APIACEAE <i>Xanthosia pilosa</i> Rudge	$n = 10$	59885	<i>B.G. Briggs</i>	North Head, Port Jackson, N.S.W.
<i>Xanthosia pilosa</i>	$n = 10$	55310	<i>B.G. Briggs</i>	Galston Gorge, N.S.W.
ARACEAE <i>Pothos longipes</i> Schott	$2n = 26$	98649	<i>A. Floyd</i>	Coffs Harbour, N.S.W.
BRASSICACEAE * <i>Cardamine hirsuta</i> L.	$2n = 16$	90666, 90667, 90668	<i>L.A.S. Johnson</i> & <i>B.G. Briggs</i>	Royal Botanic Gardens Sydney, N.S.W.
* <i>Rorippa microphylla</i> (Boenn. ex Reichb.) Hylander	$2n = 32$	56839	<i>B.G. Briggs</i>	Captains Flat, N.S.W.

FAMILY Species	Chromosome number	Voucher (Herb. NSW)	Collector	Locality
CENTROLEPIDACEAE				
<i>Aphelia drummondii</i> Benth.	2n = 16	85145	B.G. Briggs 798	SE of Ambergate, W.A.
<i>Centrolepis aristata</i> (R. Br.) Roem & Schult.	2n = 16	85154	B.G. Briggs 765	4 km S of Busselton, W.A.
<i>Centrolepis aristata</i>	2n = 16	85161	B.G. Briggs 820	5 km W of Cookernup, W.A.
<i>Centrolepis strigosa</i> (R. Br.) Roem. & Schult. var. <i>strigosa</i>	n = 10, 2n = 20	90659	B.G. Briggs	Tabbigai, Kurnell Peninsula, N.S.W.
<i>Centrolepis strigosa</i> var. <i>strigosa</i>	n = 5, 2n = 10	84964	A.C. Beauglehole 1996	Gorae West, Vic.
CYPERACEAE				
<i>Carex hypandra</i> F. Muell. ex Benth.	2n = c. 90	64400	E.D. Briggs	Lake Cootapatamba, Kosciuszko, N.S.W.
<i>Caustis flexuosa</i> R.Br.	2n = c. 106	69624	B.G. Briggs	Glenbrook, N.S.W.
<i>Carpha nivicola</i> F. Muell.	2n = 42	64403	E.D. Briggs	near Charlottes Pass, Kosciuszko, N.S.W.
<i>Fimbristylis ferruginea</i> (L.) Vahl.	2n = 20	64422	L.A.S. Johnson	Vales Point, Lake Macquarie, N.S.W.
<i>Isolepis prolifera</i> (Rottb.) R. Br.	2n = c. 66	64401	L.A.S. Johnson	Georges R. near Casula, N.S.W.
<i>Schoenus brevifolius</i> R. Br.	2n = c. 130	64392	E.F. Constable 4729	junction Princes Highway and Appin Rd., N.S.W.
<i>Schoenus imberbis</i> R. Br.	2n = c. 98	69606	B.G. Briggs	Glenbrook, N.S.W.
<i>Schoenus paludosus</i> (R. Br.) Poir.	2n = c. 120	62244	L.A.S. Johnson	Lemon Tree Passage, Port Stephens, N.S.W.
<i>Scirpus mucronatus</i> L.	2n = 40	64398	N.J. Williams	Mooneba, W of Kempsey, N.S.W.
IRIDACEAE				
<i>Libertia pulchella</i> (R. Br.) Spreng.	2n = 36	72718	L.A.S. Johnson	King William Range, Tas.
<i>Libertia pulchella</i>	2n = 36	90681	E.F. Constable	Govetts Leap, Blackheath, N.S.W.
JUNCACEAE				
* <i>Juncus cognatus</i> Kunth	2n = 60	60734	L.A.S. Johnson	Northbridge, N.S.W.
<i>J. falcatus</i> E. Mey.	2n = 80	72287	B.G. Briggs	Newport, Oregon, USA
<i>J. holoschoenus</i> R. Br.	2n = 80	34370	R.A. Williamson	near Barham, N.S.W.
<i>J. pauciflorus</i> R. Br.	2n = 40	90683	E.F. Constable	Rodriguez Pass, Blackheath, N.S.W.
<i>Luzula densiflora</i> (H. Nordensk.) Edgar <sup>1</sup> .	2n = 12, 14	77826, 77825	L.A.S. Johnson	Georges Plains, S of Bathurst, N.S.W.
LOMANDRACEAE				
<i>Chamaexeros serra</i> (Endl.) Benth.	2n = 32	75459	J.T. Waterhouse	Porongorup to Stirling Range, W.A.
RANUNCULACEAE				
* <i>Batrachium tricophyllum</i> (Chaix) Bosch	2n = 32	59304	B.G. Briggs	Jacobs River SW of Jindabyne, N.S.W.

FAMILY Species	Chromosome number	Voucher (Herb. NSW)	Collector	Locality
<i>R. amphitrichus</i> Colenso	2n = 72	72740	B.G. Briggs	44.5 km N of Benambra, Vic.
<i>R. collinus</i> R. Br. ex DC. <sup>2</sup>	2n = c. 48	57462	B.G. Briggs	Mt Coricudgy, N.S.W.
<i>R. inundatus</i> R. Br. ex DC.	2n = 48	65794	B.G. Briggs	8 km S of Bulahdelah, N.S.W.
<i>R. inundatus</i>	2n = 48	90689	B.G. Briggs	Big Boree Creek, S of Laguna, N.S.W.
<i>R. inundatus</i>	2n = 48	59884	R. Melville & B.G. Briggs	Hawkesbury River SE of Wisemans Ferry, N.S.W.
<i>R. inundatus</i>	2n = 48	90676	B.G. Briggs	7 km N of Calga, N.S.W.
<i>R. meristus</i> B.G. Briggs & Makinson	2n = 48	65788	B.G. Briggs	Reddystone Creek, NW of Glen Innes, N.S.W.
<i>R. meristus</i> <sup>3</sup>	2n = 48	53964	L.A.S. Johnson	Coolaburragundy River, S of Pandoras Pass, N.S.W.
<i>R. pachycarpus</i> B.G. Briggs <sup>4</sup>	2n = 16	57047	W.E. Giles	between Manildra and Gumble, N.S.W.
<i>R. papulentus</i> Melville	2n = 96	64395	B.G. Briggs	Crackenback River, N.S.W.
* <i>R. repens</i> L.	2n = 32	72733	L.A.S. Johnson	Ocean Beach, Strahan, Tas.
* <i>R. sceleratus</i> L.	2n = 32	89423	(not recorded)	Mullumbimby, N.S.W.
UVULARIACEAE <i>Schellhammera undulata</i> R. Br.	2n = 36	78665	B.G. Briggs	N of Calga, N.S.W.

<sup>1</sup> Plants in a population sample of *Luzula densiflora* showed one plant (NSW 77826) with  $2n = 12$  and three plants (NSW 77825) with  $2n = 14$ . NSW 77825 was determined by L.A.S. Johnson as belonging to a form of *L. densiflora* referred to by Edgar and Wilson (1993), which has 'less hairy leaf margins, ... slightly narrower leaves and a relatively larger caruncle'.

<sup>2</sup> The sample is from the 'more robust and pilose' form of *Ranunculus collinus* from the Central Tablelands of New South Wales. Briggs and Makinson (1990, 2001) expressed some doubt as to whether this form is correctly placed in *R. collinus*.

<sup>3</sup> This sample is among examples from the Central Western Slopes of New South Wales with broad, little-dissected leaf segments, described by Briggs & Makinson (2002) as an extreme variant of *R. meristus* or possibly a separate taxon.

<sup>4</sup> Briggs (1962) reported the gross chromosome morphology of members of the *R. lappaceus* group; *R. pachycarpus* showed the same karyotype as other species of this group, with chromosome pairs I and II clearly distinguishable.

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